Arizona New Housing Starts: Annual Report

January-December, 1984

	Building Permits Issued					
	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total Housing Units
APACHE COUNTY						
Eagar	44	13	0	0	1	81
St. Johns	18	20	0	0	0	38
Springerville	18	3	0	0	1	36
Unincorporated	59	3	0	1	0	65
Total, Apache County	139	39	0	1	2	222
Percent Change, Previous Year	67	0	-100	9,999	9,999	73
COCHISE COUNTY						
Benson	0	26	0	0	[illegible]	28
Bisbee	8	0	0	0	1	15
Douglas	10	0	0	0	0	10
Huachuca City	8	18	0	0	0	18
Sierra Vista	218	83	0	0	1	431
Tombstone	7	11	0	1	0	21
Unincorporated	280	229	2	0	3	466
Willcox	1	11	0	0	0	12
Total, Cochise County	440	350	2	1	5	999
Percent Change, Previous Year	-21	-39	100	-94	-44	-37
COCONINO COUNTY						
Flagstaff	386	83	40	9	1	997
Fredonia	1	15	0	0	0	16
Page	48	76	0	3	0	127
Unincorporated	388	249	0	0	2	788
Williams	8	10	1	0	0	21
Total, Coconino County	822	433	41	12	3	1,950
Percent Change, Previous Year	-1	-13	465	19	0	9
GILA COUNTY						
Globe	3	0	0	0	0	3
Hayden	0	0	0	0	0	0
Miami	1	0	0	0	0	1
Payson	94	111	1	5	5	296
Unincorporated	245	125	0	0	0	370
Total, Gila County	343	236	1	5	5	670
Percent Change, Previous Year	15	7	0	0	9,999	24
GRAHAM COUNTY						
Pima	1	18	0	0	0	19
Safford	32	5	0	1	0	41
Thatcher	18	26	0	0	0	44
Unincorporated	20	112	0	1	0	136
Total, Graham County	71	161	0	2	0	240
Percent Change, Previous Year	115	11	0	100	0	32
GREENLEE COUNTY						
Clifton	0	1	0	0	0	1
Duncan	1	1	0	0	0	2
Unincorporated	2	1	0	0	0	3
Total, Greenlee County	3	3	0	0	0	6
Percent Change, Previous Year	200	9,999	-100	0	0	100
LA PAZ COUNTY						
Parker	1	5	0	0	1	11
Unincorporated	12	177	0	0	0	189
Total, La Paz County	13	182	0	0	1	200
Percent Change, Previous Year	-56	32	0	0	9,999	19
MARICOPA COUNTY						
Avondale	52	106	0	3	1	170
Buckeye	4	22	0	1	0	30
Chandler	2,702	0	10	17	75	4,225
El Mirage	2	3	10	0	0	25
Gila Bend	4	0	0	0	0	4
Gilbert	347	1	22	6	23	694
Glendale	1,441	12	11	0	357	5,973
Goodyear	8	9	0	0	0	17
Guadalupe	N/R	N/R	N/R	N/R	N/R	N/R
Mesa	2,542	1	41	110	129	12,482
Paradise Valley	86	0	0	0	0	86
Peoria	1,800	0	0	0	3	2,000
Phoenix	5,536	242	189	296	904	19,558
Scottsdale	1,797	1	2	69	106	4,286
Surprise	5	32	0	2	0	46
Tempe	972	0	12	33	198	3,894
Tolleson	7	0	2	0	1	67
Unincorporated	3,833	1,214	0	75	99	6,439
Wickenburg	28	1	1	8	3	97
Youngtown	8	0	0	1	0	18
Total, Maricopa County	20,774	1,746	399	821	1,975	69,915
Percent Change, Previous Year	-2	-4	-38	-2	17	25
MOHAVE COUNTY						
Kingman City	84	20	4	0	0	112
Kingman Area	44	227	0	0	0	271
Lake Havasu City	432	30	36	8	12	753
Lake Havasu Area	6	34	0	0	0	40
Mohave Valley N.	224	443	2	14	45	1,048
Mohave Valley S.	434	381	0	1	0	819
Dolan Springs	19	45	0	0	0	64
Sacramento Valley	17	86	0	0	0	103
Mohave General	46	55	0	0	0	101
Total, Mohave County	1,306	1,921	41	29	57	3,311
Percent Change, Previous Year	44	35	1,266	81	200	81
NAVAJO COUNTY						
Holbrook	2	2	0	0	0	4
Show Low	40	53	4	0	0	101
Snowflake	16	0	0	0	0	16
Taylor	5	1	0	0	0	6
Unincorporated	496	20	1	1	0	522
Winslow	17	14	0	0	0	31
Total, Navajo County	576	90	5	1	0	680
Percent Change, Previous Year	19	-63	9,999	9,999	-100	-15
PIMA COUNTY						
Marana	3	39	0	0	0	42
Oro Valley	49	0	0	0	0	49
South Tucson	5	0	0	0	0	5
Tucson	1,042	519	125	49	66	6,261
Unincorporated	3,011	1,969	0	0	267	9,022
Total, Pima County	4,110	2,227	125	49	336	15,379
Percent Change, Previous Year	-13	-1	35	36	268	2
PINAL COUNTY						
Apache Junction	81	406	0	11	1	536
Casa Grande	35	6	2	0	0	45
Coolidge	1	24	0	0	1	37
Eloy	3	8	1	0	0	13
Florence	1	38	1	5	1	66
Kearny	1	0	0	0	0	1
Mammoth	1	3	0	0	0	4
Superior	2	0	0	0	0	2
Unincorporated	208	381	25	13	9	874
Total, Pinal County	333	866	29	29	12	1,578
Percent Change, Previous Year	-21	7	262	-53	71	2
SANTA CRUZ COUNTY						
Nogales	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	1	9	0	0	0	10
Unincorporated	94	0	0	0	0	94
Total, Santa Cruz County	95	9	0	0	0	104
Percent Change, Previous Year	4	50	-100	-100	0	-4
YAVAPAI COUNTY						
Chino Valley	36	89	0	0	0	125
Clarkdale	17	5	0	0	0	22
Cottonwood	41	33	2	4	0	85
Jerome	1	0	0	0	0	1
Prescott	243	82	1	10	14	484
Prescott Valley	170	57	18	8	0	284
Unincorporated	856	404	14	13	0	1,437
Total, Yavapai County	1,364	840	35	36	19	2,418
Percent Change, Previous Year	2	-25	29	118	72	-6
YUMA COUNTY						
Somerton	32	2	0	0	0	34
Unincorporated	280	680	6	1	0	965
Wellton	0	2	0	0	0	2
Yuma	167	93	2	6	3	365
Total, Yuma County	499	787	8	7	3	1,366
Percent Change, Previous Year	11	28	100	133	200	28
TOTAL, ARIZONA	30,845	9,098	576	765	2,427	98,834
PERCENT CHANGE, PREVIOUS YEAR	-2	0	3	-1	32	17

N/R: No Report
9,999: The prior period had no activity or the percent change is greater than 9,999.
-100: The current period had no activity, but the prior period did have activity.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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1982, an increase of 72 percent since 1977, but most of this gain was due to inflation. While the sales of merchant wholesalers rose the most, 88 percent, this type of operation produced only 60 percent of all sales in 1980, indicating a relatively low volume of sales per establishment ($2.2 million). The average sales of all wholesale establishments were $3.0 million.

Wholesale trade establishments in the Phoenix metropolitan area had sales of $10.9 billion in 1982, 78 percent of the state's total, and numbered 3,083, which was 68 percent of the state's total. Wholesale firms in the city of Phoenix produced sales of $7.9 billion, 57 percent of the state's total.

Despite a population only one-third that of Tucson, Tempe's sales volume of $1.3 billion was greater than Tucson's $1.1 billion. Scottsdale wholesalers sold $0.5 billion worth of goods, while sales in Mesa and Glendale were less than in Nogales ($0.3 billion), a town with only 15,000 residents. The large sales volume in Nogales was due to its proximity to Mexico.

EMPLOYMENT

Arizona's wholesale trade industry employed 52,400 workers during March 1982, an average of 12 per establishment. The annual payroll of wholesale establishments was $906 million, an average of $12,300 per employee. Sales per employee were $266,000.

TYPES OF WHOLESALER

Of the numerous kinds of wholesale business, those involved with machinery, equipment, and supplies outnumbered all others, with 1,056 establishments, 23 percent of all wholesale firms. Establishments dealing with motor vehicles, automotive parts and supplies, and groceries each accounted for 11 percent of the total. Other kinds of wholesale business include furniture, lumber and other construction materials, electrical goods, hardware, paper products, chemicals, and petroleum products.

SHARE OF SALES

Grocery wholesalers produced the largest share of the industry's sales, 23 percent ($3.2 billion); machinery and equipment wholesalers generated 13 percent; and those handling petroleum products contributed 12 percent.

Wholesalers of chemicals experienced the largest sales increase between 1977 and 1982, 435 percent. Sales of those firms dealing with drugs and druggists' sundries rose 230 percent. In contrast, sales of farm product wholesalers were unchanged.

— Tom R. Rex
Research Manager

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new record in 1984. Signs of market saturation are increasing, such as more use of rental concessions and vacancy rates that are higher than the norm. Hence, multifamily activity is expected to decline during 1985, to 15,000 units in Maricopa County, which would be the third best year on record, and to 5,000 units for the rest of Arizona. If actual results should exceed the forecast, the predominant reasons are likely to be continued availability of financing and developer building decisions that are based more on potential, long-term demand than on actual, current demand.

In response to increasing concerns about overbuilding, the office building market is expected to decline slightly in Maricopa County to around $300 million. The retail sector should continue to grow, due to increased retail sales and the need for more retail space in the newer residential areas. The industrial sector is expected to continue expanding, due to continued economic growth.

In January 1985, Phoenix Magazine, Inc., and the Arizona Real Estate Institute at ASU again surveyed the representatives of four real estate groups in Maricopa County: homebuilders, financial services (banks, savings and loan associations, and mortgage bankers), real estate brokerages (residential and commercial), and "other" entities (appraisal, development, and property management firms, and government). In the 1984 survey, more than 60 percent of the respondents believed that economic conditions would improve, while fewer than 5 percent foresaw worsening conditions for 1984. Although respondents to the 1985 survey had lower expectations, a majority foresee economic conditions remaining similar to those achieved in 1984. However, a large number (15 percent) believe the economy could worsen during the year.

As presented in Table 2, the consensus outlook is for stability, in that expected levels do not differ significantly from current levels. The relative closeness of the mode (most common value) to the median (value of the middle item in an ordered range) tends to demonstrate a fairly consistent and narrow range of responses.

As with the set of expectations, the expressed level of confidence is lower than it was a year ago. More than 80 percent of the 1984 survey group were confident that the local economy, new home market, and their firm's activity would improve. In the current survey, the expressed level of confidence that these areas would improve is: 61 percent for the new home market, 78 percent for their firm's activity, and 68 percent for the local economy.

The main concern is still the level of mortgage interest rates; only 40 percent of the surveyed group expressed confidence that the rates will decline. In last year's survey, 63 percent of the respondents voiced confidence that the federal government's economic policy would lead to an improved economy, as compared to 53 percent in the current survey.

The respondents expect prices to increase at levels similar to those in 1984. For example, resale home prices are predicted to increase 5 percent; apartment rents are expected to rise 5 percent, and a 10 percent increase in land prices is forecast.

The respondents to the 1985 survey are not as optimistic as participants in the 1984 survey. However, they do foresee a year similar to 1984. Given the strong level of market activity in 1984, expectations for stability would call for another good year of real estate activity in 1985.

— Jay Q. Butler

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ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-To-Date Value	Year-To-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	3rd Qtr.	41.738	8.9	12.0	NA	NA
Arizona - 1972 Dollars	3rd Qtr.	20.193	9.6	11.2	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	4th Qtr.	184.4	0.7	5.9	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Jan.	121.5	0.5	0.5	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	Dec.	258,125	– 6	–12	3,810,851	82
Pima County	Dec.	84,906	16	107	774,416	22
Balance of State	Dec.	44,600	–51	– 5	676,598	32
Arizona	Dec.	365,631	–13	– 1	5,261,867	44
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Dec.	3,229	5	–40	59,915	26
Pima County	Dec.	915	30	71	15,379	2
Balance of State	Dec.	887	–12	1	13,340	5
Arizona	Dec.	5,031	5	–26	88,634	17
HOME SALES						
Maricopa County - Number	Jan.	3,173	–35	–37	3,173	–37
Maricopa County - Median Price	Jan.	72,750	0.1	4.1	72,750	4.1
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Jan.	2,751.8	2.4	9.6	2,751.8	9.6

NA = Not Applicable

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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East Valley Winter Migration Up 6 Percent in '85

The winter migration of retired and semi-retired people to the warmer climate of the South and the Southwest is a phenomenon of growing social importance. The economies of many Sunbelt communities depend heavily on the monies spent by these winter residents. At the same time, seasonal population inflows often create planning problems for local governments and agencies that provide highways, water, health care, and other public services.

In 1980, for the first time, the U.S. Census Bureau provided information on seasonal migration by compiling counts of non-permanent residents; these figures show that four Sunbelt states — Florida, California, Arizona, and Texas — were the destination of the largest number of migrants. Of the estimated 300,586 non-permanent U.S. households on April 1, 1980, a date that is past the prime winter period, 21,286 (7 percent) were found in Arizona, ranking the state third behind Florida (132,257) and California (23,392). These data also clearly indicate two primary patterns of seasonal migration: from the Northeast and the Mideast regions to Florida and from the northern-tier states (those on the Pacific coast to those on the Great Lakes) to the Southwest.[1]

The Phoenix metropolitan area is one of the major seasonal homes for these winter residents, many of whom locate in Scottsdale, the Sun City/Youngtown area, or other parts of the West Valley. However, the

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Arizona's "Four Cs" Decline

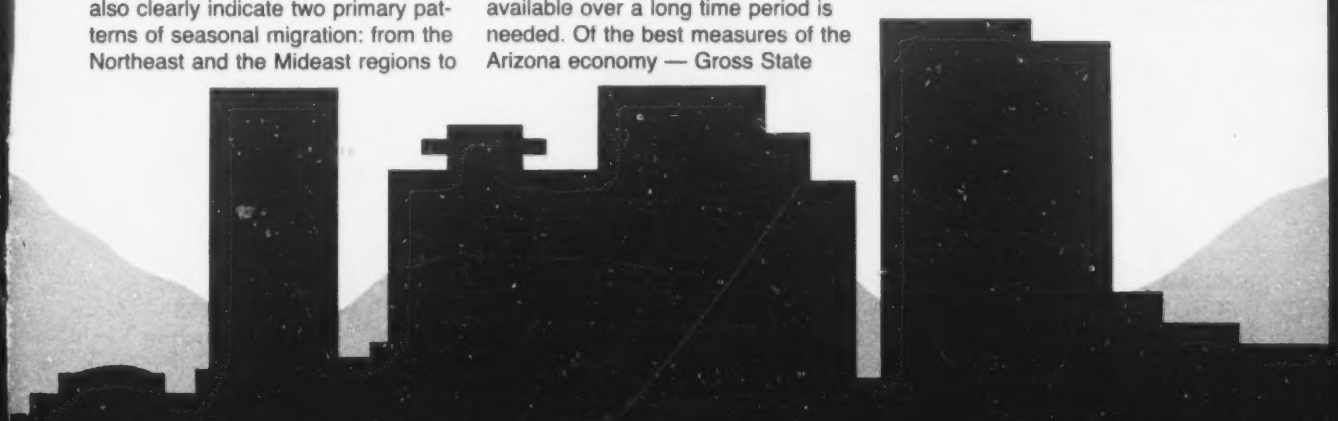
Historically, the Arizona economy has been described as the "four Cs": copper, cattle, cotton and citrus. While it is widely acknowledged that other industries have gained significance recently, especially high technology manufacturing and tourism-oriented services, many still consider the old mainstays of the Arizona economy to be important.

In order to determine which characterization of the Arizona economy is accurate, a consistent set of data available over a long time period is needed. Of the best measures of the Arizona economy — Gross State Product (GSP), employment, and personal income (PI) — only the latter is available by industry for many years (since 1929, from the U.S. Department of Commerce).

THE ARIZONA ECONOMY IN 1929

The four Cs characterization of the Arizona economy was relatively accurate in 1929, according to PI data. The agriculture and mining industries together contributed nearly one-third

See "Four Cs," page 4



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most popular haven for winter residents is the East Valley, particularly the Mesa and Apache Junction areas. The growing volume of winter visitors to the East Valley each year is clearly evidenced by the proliferation in the Apache Trail corridor of travel trailer, recreational vehicle (RV), and mobile home parks, shopping centers, restaurants, and other businesses that cater to seasonal residents.

THE 1984 CENSUS

While many people are interested in the number and characteristics of the Valley's winter residents, little data on them has been available. The expressed need for such information, plus uncertainty concerning the number of non-permanent residents each winter, led the authors to undertake a census during February 1984 of mobile home, travel trailer and RV parks in that part of the Valley with the largest concentration of winter residents: the Mesa/Apache Junction area. Given the limited resources available, this initial survey sought information about the volume of winter visitors but did not attempt to enumerate all winter residents. Those staying in motels, hotels, apartments, houses, with friends or relatives, or camping on public lands were not contacted. Thus, the estimates produced by last year's study should be interpreted as a measure of the most visible segment of the entire population of winter residents, rather than as an estimate of the total volume of winter visitors.

For the census, a list of 236 mobile home, travel trailer, and RV parks located in the Mesa/Apache Junction area was compiled, and the owners or managers of the parks were surveyed by telephone to ascertain data relating to the number of spaces, occupancy levels, and proportion of winter residents, along with certain other characteristics of the parks. Based on this information, it was estimated that 27,500 winter resident households or, assuming an average of two people per household, 55,000 people were living in the Mesa/Apache Junction area parks during the first week of February 1984.[2]

1985 CENSUS METHODOLOGY

Last year's survey of mobile home, travel trailer, and RV parks was the first in a series of annual studies that will provide a continuing source of information on the Valley's winter resident population. Thus, the census was conducted again during the first week of February 1985. For consistency, similar survey procedures were used, but the survey area was expanded to include parks in Chandler, Gilbert, Scottsdale, Tempe, and the non-incorporated areas of eastern Maricopa County.

Starting with the list of parks from the 1984 census, an expanded list was compiled of parks located in the newly added areas, together with additional parks located in the original survey area. Researchers used a variety of sources: directories of mobile home, travel trailer, and RV park associations; the list compiled by Mountain West Research for the *Phoenix Metropolitan Housing Study;* and city and county officials. The number of parks included in the 1985 survey totaled 318.

Members of the survey team again attempted to telephone the owner/manager of each park; in a few cases, a personal visit to the park was necessary. Some of the owners/managers declined to be surveyed; some parks had no current telephone listing; and others could not be contacted after repeated attempts. The overall response rate for the 1985 survey was 85 percent.

For non-responding parks, counts of the number of spaces were drawn from directories, the Mountain West listing, or site visits. Information from the responding parks was employed to estimate occupancy rates and the proportion of winter residents for the non-respondents. This estimation procedure was based on stratification by geographical area, age of park, and type of park. The survey data were then used to estimate the number of winter visitors residing in mobile home, travel trailer, and RV parks in the East Valley during the first week of February 1985.

1985 CENSUS RESULTS

A summary of the 1985 census results is presented in Table 1. The 318 parks included in the survey were found to have a total of 29,629 travel trailer and RV spaces and 30,448 mobile home spaces — a combined total of more than 60,000 spaces in the East Valley area. The proportion of spaces occupied at the time of the survey was considerably higher in mobile home parks (an overall occupancy rate of 90 percent) than in travel trailer and RV parks (77 percent). While many of the travel trailer and RV parks were filled to capacity, the average occupancy rate for the entire group was the result of the low occupancy rates in several large new parks that opened for business during the 1984-85 winter season.

Based on information collected from each responding park concerning the proportion of spaces occupied by winter visitors, it is estimated that 67 percent were seasonal rather than year-round residents. With an estimated total of 50,361 occupied spaces, this proportion implies that there were almost 34,000 winter resident households in East Valley mobile home, travel trailer, and RV parks during the first week of February 1985. Information from previous studies[3] indicates that the average size for such households is nearly two people, resulting in an estimated population of 68,000 winter residents. Since some winter visitors spend only part of the season in the East Valley, then move on to other areas, the total headcount for the entire 1984-85 winter season must be substantially more than 68,000.

Geographical Breakdown

To provide a somewhat more detailed analysis in the 1984 survey, the entire Mesa/Apache Junction area was split into three subareas on the basis of major north-south streets and/or other divisions: *Area I* — Price Road to Power Road/Bush Highway; *Area II* — Power Road/Bush Highway to Meridian Road; *Area III* — Pinal County — Meridian Road to Mountain View Road. These same three subdivisions were retained for the 1985 analysis, with the newly added territories (Chandler, Gilbert, Scottsdale, Tempe, and the non-incorporated areas of eastern Maricopa County) grouped together and designated Area IV.

Based on these geographical divisions, the largest number of winter visitors was the 17,500 households of Area I. The parks in Areas II and III also served as temporary homes to large numbers of winter resident households — 6,100 and 7,300 respectively. A clear indication of the popularity of the parks in the Mesa/Apache Junction area is the fact that more than 70 percent of their spaces

TABLE 1
WINTER RESIDENTS IN EAST VALLEY MOBILE HOME, TRAVEL TRAILER, AND RV PARKS
By Geographic Area, February 1985

	Area I	Area II	Area III	Area IV	Total
Number of Mobile Home Spaces	13,060	6,030	4,028	7,330	30,448
Occupancy Rate (percent)	90	80	89	99	90
Number of Travel Trailer and RV Spaces	12,847	7,944	7,792	1,046	29,629
Occupancy Rate (percent)	96	36	72	99	77
Number of Occupied Spaces	24,118	8,643	9,283	8,317	50,361
Percentage of Spaces Occupied by Winter Residents	73	71	78	26	67
Number of Winter Resident Households	17,521	6,137	7,274	3,019	33,951

Source: Census conducted by the authors, February 1985.

were occupied by winter residents during the February survey period. The concentration of seasonal residents in the mobile home, travel trailer, and RV parks of Area III was particularly apparent, with nearly 80 percent of the spaces occupied by winter visitors. The 1985 survey revealed that both the number and concentration of winter residents was much lower in Area IV parks. Only 26 percent of the residents were identified as winter visitors — about 3,000 households.

TABLE 2
NUMBER OF PARK SPACES AND WINTER RESIDENT HOUSEHOLDS
Geographic Areas I, II, and III Only

	1984	1985[a]	Percent Increase
Number of Mobile Home Spaces	19,716	21,783	10
Number of Travel Trailer and RV Spaces	18,557	27,279	47
Number of Occupied Spaces	36,199	40,056	11
Number of Winter Resident Households	27,447	29,202	6

[a]The 1985 comparative figures are not consistent with the data for Areas I, II, and III in Table 1 because they pertain only to existing parks included in both years' surveys and to parks opened during 1984 or 1985.

Source: Census conducted by the authors, February 1985.

Arrival Time and Number of Visitors

The survey also asked park owners/managers their impressions concerning the arrival time and number of winter residents this season, compared with winter, 1984. Opinion seemed split on arrival time: 24 percent thought their customers generally arrived earlier this year, while 51 percent detected no change, and 25 percent felt that their parks filled later this season, compared with last year. The opinion that the winter residents arrived later this year was most often voiced (33 percent of respondents) by owners/managers of parks in Area III. The reason most frequently offered for later arrivals was the fact that many people waited until after the elections in November before traveling to their seasonal residence in the East Valley area. Those owners/managers who felt their customers arrived earlier cited bad weather in the winter residents' "home" states as the primary factor.

Of all responding owners/managers, 30 percent felt that more winter visitors resided in their park this year, compared with last year; most said the reason was better economic conditions. At the same time, 62 percent perceived no numerical change this year, observing that their parks were always full, and/or that the winter residents own their own park spaces. When questioned about the relative volume of winter residents in the entire East Valley, most of the owners/managers perceived growth in the overall number of winter residents: 72 percent answered that there were more visitors than last year; 15 percent felt overall volume had not changed; and only 13 percent said that fewer visitors arrived.

COMPARISONS WITH 1984 SURVEY RESULTS

With the addition of new territory to the survey area, the 1985 estimates cannot be directly compared with the results of the 1984 survey. However, a summary of the results from both the 1984 and 1985 surveys for Areas I, II and III (where most of the winter visitors reside) is presented in Table 2. These statistics clearly show that substantial growth has occurred during the past year, the expansion being particularly evident in the number of spaces available in travel trailer and RV parks. The total number within Areas I, II and III grew almost 50 percent between 1984 and 1985. In addition, the number of spaces in mobile home parks grew 10 percent. A major part of the expansion took place within survey Area II, where the number of travel trailer and RV spaces jumped from 1,200 in 1984 to 6,800 in 1985.

Because of this large increase in the supply of spaces, many new parks experienced low occupancy rates during the 1984-85 season. On balance, the increase in spaces, combined with somewhat lower occupancy rates overall and a greater number of year-round residents in many parks, produced a 6 percent rise in the number of winter resident households in the mobile home, travel trailer, and RV parks of Areas I, II, and III between February 1984 and February 1985.

CONCLUSION

The results of this year's census again emphasize the importance to the local economy of the phenomenon of seasonal migration — an addition of nearly 70,000 people to the Phoenix area, if only the winter residents of East Valley mobile home, travel trailer, and RV parks are counted. The 1985 figures also point

to the large expansion in the supply of park spaces, which will accommodate an even greater number of winter visitors. Current construction and planning of additional parks in the East Valley area imply that such expansion will continue in future years.

Although not included as part of this census, mobile home, travel trailer, and RV parks under construction in the western Valley also appeal to the winter resident and should be noted. *The Phoenix Metropolitan Housing Study*, Fourth Quarter, 1984,[4] identified almost 2,000 spaces in travel trailer and RV parks located in West Valley communities. More than 1,400 of these spaces were located in parks built during 1984, and the number is likely to grow further during the next few years. The low occupancy rates experienced by some of the new parks during the 1984-85 winter season indicate that the expansion of capacity may exceed demand in the short run, but the growing retired and semi-retired population of the United States can be expected to sustain the growth in the number of seasonal migrants to the East Valley and other parts of Arizona.

— **Jacqueline Fifield**
Research Analyst

— **Stephen K. Happel**
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The authors gratefully acknowledge the cooperation of the park owners/managers who responded to the February survey; Mountain West Research, for providing listings of the mobile home, travel trailer, and RV parks in Maricopa County; and the planning departments of Maricopa County and the cities of Apache Junction, Chandler, Gilbert, Mesa, and Tempe. In addition, they appreciate the efforts of Mark Harrington, Linda Lee, Bill Sobbing, Paul Umbriano, and Todd Wert, who spent many hours conducting the telephone survey.

[1]U.S. Bureau of the Census, "Nonpermanent Residents by States and Selected Counties and Incorporated Places: 1980," *Census of Population, 1980*, Supplementary Report PC80-S1-6 (April 1982).

[2]Stephen K. Happel, Timothy D. Hogan, Deborah Sullivan, Heidi Rowe, and Laura Smith, "Mobile Home and Travel Trailer Parks in the East Valley: A Census," *Arizona Business* (Second Quarter, 1984): 13-18.

[3]U.S. Bureau of the Census, "Nonpermanent Residents by States and Selected Counties and Incorporated Places;" and Stephen K. Happel, Timothy D. Hogan, and Deborah Sullivan, "The Social and Economic Impact of Phoenix Area Winter Residents," *Arizona Business* (First Quarter, 1983): 3-10.

[4]Mountain West Research — Southwest Inc., *Phoenix Metropolitan Housing Study* (Fourth Quarter, 1984): 52.

"Four Cs," from page 1

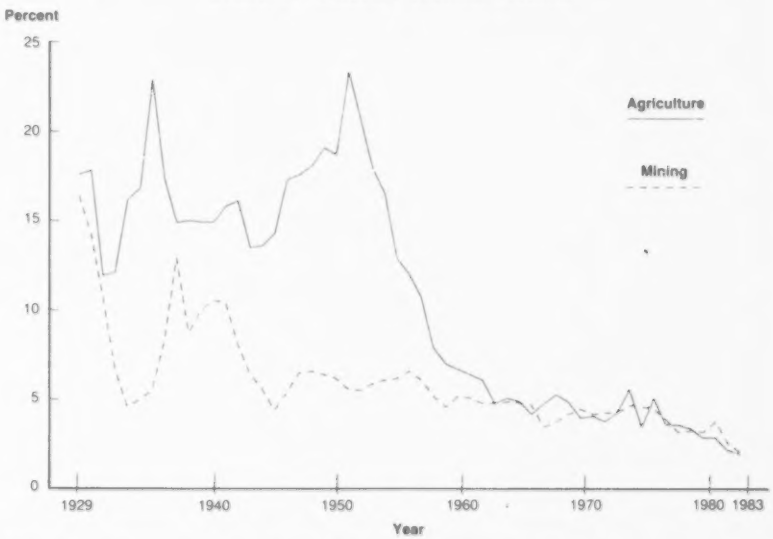
of the state's personal income. Even then, however, the PI derived from the services and trade industries was nearly as much as that from agriculture and mining.

In comparison to the 1929 national economy, in which manufacturing was the most important industry, mining and agriculture were much more significant to the Arizona economy. The services and trade industries, however, were no more important to the Arizona economy than to the national economy. Thus, the four Cs did fairly describe the Arizona economy in 1929, particularly in comparison to the national economy.

DECLINE OF MINING AND AGRICULTURE

The Arizona mining industry has declined in significance since 1929 (see Figure I). Its share of PI fell to less than 7 percent in 1932 from more than 16 percent just three years earlier. Except preceding and during World War II, mining's share of PI remained at approximately 6 percent until it began a slow decline around 1960. Even during the copper boom of 1981, mining contributed less than 4 percent of Arizona's personal income; its contribution now is just 2 percent.

FIGURE I
THE DECLINE OF AGRICULTURE AND MINING
Share of Arizona Personal Income



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

The mining industry had remained somewhat more important to the Arizona economy than to the national economy until 1983. Now, Arizona mining's share of Arizona PI is no greater than national mining's share of national PI.

The Arizona agriculture industry began to decline much later than the mining industry. Its peak year was 1951, when agriculture contributed 23 percent of Arizona's personal income. The industry's portion has fallen since then, however, to less than 8 percent by 1958, and to 2 percent by 1983. Agriculture has not been more important to the Arizona economy than the national agriculture in-

dustry has been to the national economy since the early 1960s.

The actual output of mining and agriculture has not necessarily declined. Except for cyclical downswings, the inflation-adjusted GSP of both industries has increased. However, this growth has been much slower than that of Arizona's other industries. The explosive growth of the state's urbanized areas has overwhelmed these rural industries.

In some parts of rural Arizona, mining and/or agriculture remain the dominant forces of the local economy. For these areas, such as portions of Gila, Graham, Greenlee, Pinal and Yuma counties, a slump in mining or agriculture can be devastating. Because their population is so small, however, these problems barely affect the state as a whole.

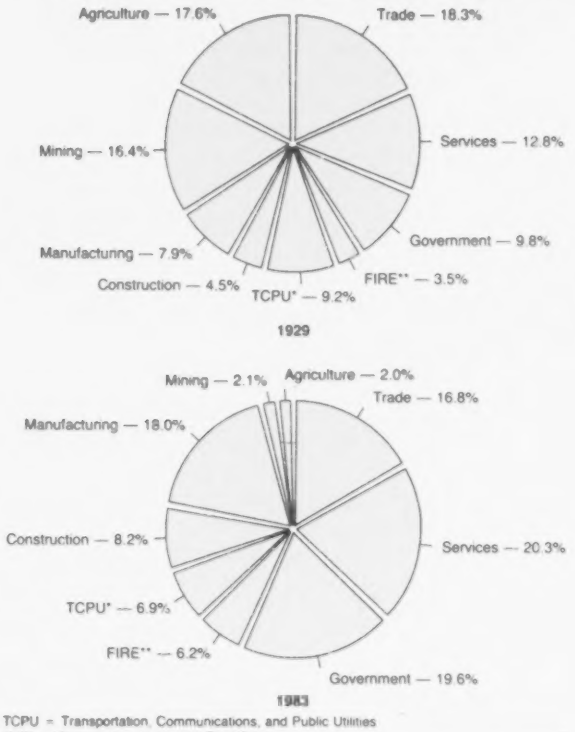
THE GROWTH INDUSTRIES

The agriculture and mining industries' combined share of Arizona personal income has declined from 32 percent in 1929 to 4 percent in 1983. Three industries in particular have grown to replace most of this lost share.

Government was the first to gain in importance, its share of PI rising from less than 10 percent in 1929 to more than 20 percent in 1932, a result of the Depression. During World War II, when military operations expanded in Arizona, government's share of PI briefly exceeded 33 percent. Since the early 1960s, government's portion of PI has remained near 20 percent; it contributed the largest percentage of Arizona's personal income each year from 1961 through 1982. (Government's share of GSP, however, was only 14 percent, ranking it as the fifth largest industry.) Compared to the contribution of government to national PI, the Arizona government's share of Arizona PI has been slightly higher.

During the 1950s, Arizona's manufacturing industry began to expand. Until 1951, it usually had accounted for less than 7 percent of Arizona personal income, while the national manufacturing industry contributed more than 25 percent of U.S. PI. By 1960, the PI derived from manufacturing was nearly 14 percent of the state's total, and by 1980, the industry had achieved an 18 percent share of PI, still not as large as the national share.

FIGURE II
THE SHIFT IN ARIZONA'S INDUSTRIAL STRUCTURE
Sectoral Share of Arizona Personal Income



* TCPU = Transportation, Communications, and Public Utilities
** FIRE = Finance, Insurance, and Real Estate
Source: Bureau of Business and Economic Research, College of Business, Arizona State University

Arizona's services industry has also grown, but to a lesser extent. Excluding cyclical fluctuations, this industry accounted for approximately 18 percent of Arizona PI from 1929 through 1960, almost the same share it constituted nationally. Both in Arizona and nationally, services' share of PI has increased since 1960, especially during the last few years.

THE ARIZONA ECONOMY TODAY

Arizona now has a diversified economy, one much different than in 1929 (see Figure II). While manufacturing, especially that related to high technology, and services are the most rapidly growing industries, the government and trade sectors still contribute comparable shares of Arizona personal income. If GSP is used as the measurement base, the finance, insurance and real estate industry must be added to this group. The Arizona industrial structure is much like the national structure, except that manufacturing is a little less important in Arizona, while construction and government are slightly more significant.

CONCLUSION

It is simple but accurate to say that the four Cs (agriculture and mining) were important to Arizona in the past. Mining declined first, replaced by government. Agriculture declined more recently, replaced by manufacturing and, later, by services as well. Agriculture and mining seem doomed to continue their relative decline, although neither can fall much farther since each contributes only 2 percent of Arizona personal income. Their shares of employment and Gross State Product are similarly small.

These changes in the Arizona economy did not occur recently. By the mid-1960s, the economy's structure already closely resembled that of today. Recognition of these changes has been slow, however. The importance of the manufacturing and services industries has only recently been realized, while the problems of the mining and agriculture industries still garner considerable attention.

— **Tom R. Rex**
Research Manager

Costs Skyrocket in the '80s

Home Ownership Remains a Dream for Many

Rising home ownership costs during the last few years have shattered the dream of owning a home for many Americans. A goal of most Americans since the early part of the 20th century, home ownership had been realized by nearly two-thirds of the population by 1979. This proportion has recently declined, however.

Reasons for owning a home have included numerous qualitative factors: privacy, a wholesome environment for children, and a place to entertain friends. Financially, owning has been considered advantageous to renting and, especially during the 1970s, owning was believed to be a good investment.

A recent study by the Bureau of Business and Economic Research examined the financial aspects of home ownership during the 1980s, compared to earlier periods. It is widely acknowledged that home ownership today is less affordable than it was during the 1970s. In fact, housing during the 1980s is relatively more costly than at any time since at least the 1930s. Two factors are most responsible for these problems: high mortgage interest rates and low housing appreciation rates. Relatively high home prices also contribute to housing's financial difficulties.

HOME PRICES

The phenomenon of rising home prices was not new to the 1970s; home prices have increased steadily since the late 1930s. Even on an inflation-adjusted basis, home prices have advanced, although most of this real growth occurred during the 1950s and the 1970s.

The increase in home prices was less than the gain in household incomes until the 1970s. Thus, the median home price to annual household income ratio declined from 2.9 in 1940 to 2.2 in 1970 (as a "rule of thumb," buyers were considered able to afford a home priced 2.5 times their annual income). After 1970, however, this ratio rose, peaking at 3.0 in 1978 and 1979, although it has since declined to 2.8 (see Figure I). Thus, independent of mortgage interest rates, more income has been needed during the 1980s to buy a home than at any time between the mid-1940s and mid-1970s.

Household incomes have not kept pace with home prices since 1970, despite the increased frequency of dual-income households. Thus, the affordability problem is even more severe for the traditional single-income family.

MORTGAGE INTEREST RATES

Mortgage interest rates were remarkably stable from the 1930s through the mid-1960s: FHA rates ranged from just 4.5 percent to 5.5 percent. During this period, the inflation rate averaged between 1 percent and 2 percent; therefore, the real interest rates were usually between 3 percent and 4 percent.

While mortgage interest rates generally rose from the mid-1960s through 1980, the boosts did not keep pace with inflation. Thus, real interest rates fell from the historic 3 percent to 4 percent to negative rates during the mid and late 1970s (see Figure II). These negative real interest rates were a primary contributor to the real estate boom of the 1970s.

In 1981, rising interest rates and falling inflation rates caused real interest rates to return to normal levels. A continued sharp decline in inflation accompanied by only a slight reduction in interest rates created a never-before-experienced condition of nearly 10 percent real interest rates.

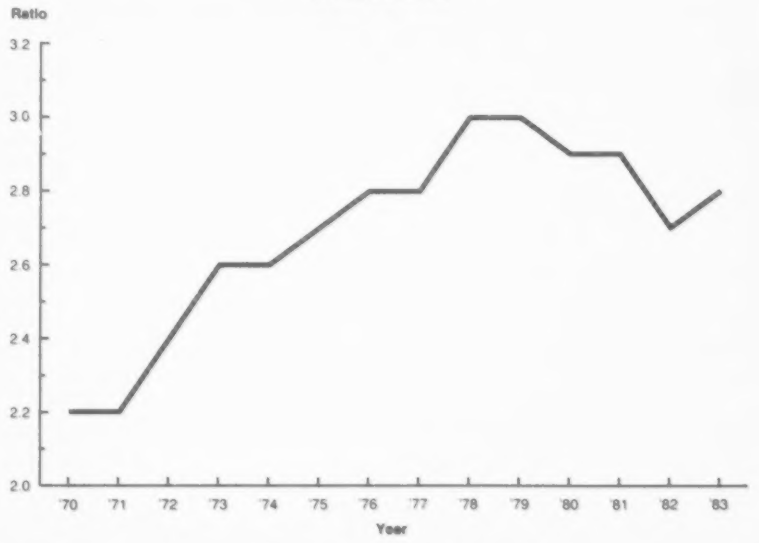
Real interest rates represent an added cost to the home owner, a cost that cannot be recouped if increases in home values do not also exceed the inflation rate.

MORTGAGE PAYMENTS

The monthly mortgage principal and interest payment has increased steadily, even on an inflation-adjusted basis. Until the late 1960s, the higher payments were due mostly to higher home prices. Since that time, both home prices and mortgage rates have contributed to the higher payments, compounding the effect on the buyer.

Until the mid-1970s, the typical mortgage payment usually required between 17 percent and 20 percent of monthly household income, though this proportion was slightly less from the late 1940s into the 1950s. After the early 1970s, this ratio steadily grew, reaching nearly 43 percent in 1981. The recent decline in mortgage rates, coupled with slightly lower real home prices, has lowered the ratio to 36 percent — still higher than in any year prior to

FIGURE I
HOME PRICE-TO-INCOME RATIO
United States



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

1980 (see Figure III).

Mortgage payments are nearly 90 percent higher now than they were 15 years ago, on an *inflation-adjusted basis.* If mortgage rates were currently set at their historic real level (a nominal rate of approximately 8 percent), the real principal and interest payment would be nearly equivalent to that of 15 years ago.

Thus, while housing affordability has declined since 1950, relatively little deterioration occurred until the mid-1970s. Since the late 1970s, households earning the median income have not been able to afford the median priced home.

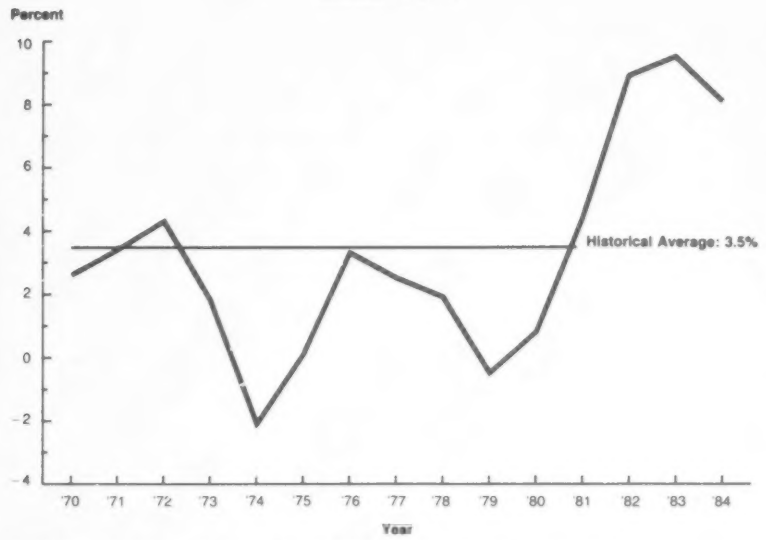
APPRECIATION OF HOME VALUES

While home values have risen at a rate exceeding inflation over the long term, this relationship has not been stable, occurring more during the 1950s and 1970s than in other years. In addition, even during a period of higher housing appreciation, the rate usually slows to less than the inflation rate during recessionary years. On an inflation-adjusted basis, even during the 1970s, the increase in housing prices was not unusually large except during 1973, 1976 and 1978. The sharp increases in home prices were partially a result of a high underlying inflation rate.

Generally, the total amount paid for principal and interest has only slightly exceeded the appreciation in the home's value. Thus, home payments usually can be viewed as a form of savings; the only true expenses are those related to buying and selling the home. During the 1970s, with negative real interest rates and rapidly appreciating home values, even the buying and selling expenses could be recouped.

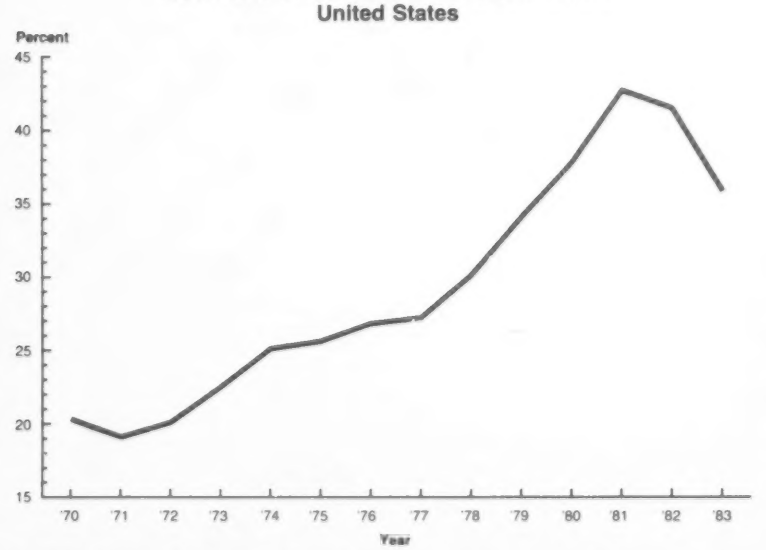
If housing appreciation is relatively slow, however — that is, near the inflation rate, as during the 1960s and 1980s — the increase in the home's value does not equal the mortgage costs. If the real interest rates are usually high, as during the 1980s, the mortgage costs are even higher. Thus, housing has been relatively expensive during the 1980s because of high interest costs and little prospect of appreciation in value (see the Third Quarter 1984 and March 1985 issues of *Arizona Business* for more information on appreciation).

FIGURE II
REAL MORTGAGE INTEREST RATES
United States



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

FIGURE III
MORTGAGE PAYMENT-TO-INCOME RATIO
United States



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

IMPLICATIONS

A dramatic shift in the economics of home ownership occurred between the late 1970s and early 1980s, due to a swing from negative real interest rates to record high real rates and to a swing from housing appreciation in excess of the inflation rate to a rate barely keeping pace with inflation. During the 1970s, investment in housing was the most profitable it has ever been in the United States; currently, housing investment is the least profitable since at least the 1930s. Thus, housing's issues go beyond the affordability problem that is preventing people from realizing their goal of home ownership. Even those who qualify for a home face the prospect of relatively high costs and relatively low returns.

Since financial considerations represent only a few of the many

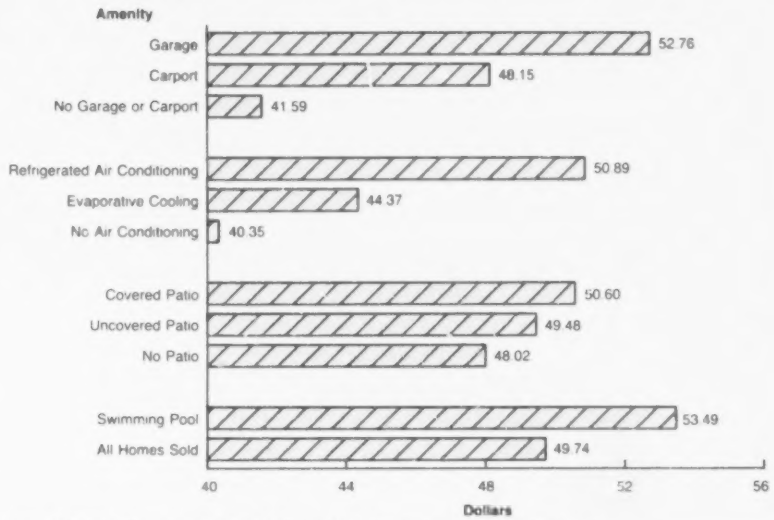
See "Home Costs," page 10

More Large Homes Sold During '84

Larger homes, with more amenities, sold in greater numbers during 1984 than during 1983 in the Phoenix area, partially explaining a 6 percent rise in the median sales price. The 1984 median sales price of $73,000 for single family homes was significantly higher than the 1983 figure, $68,650, but homes that sold during 1984 also had significantly more living space, bathrooms, garages and swimming pools than homes that sold during 1983.

The median size of single family homes sold during 1984 was 1,442 square feet. Larger homes are more likely than smaller homes to include amenities such as garages, swimming pools, refrigerated air conditioning, and additional bathrooms. These amenities add value to a home, apart from the value derived from greater square footage.

FIGURE I
MEDIAN SALES PRICE PER SQUARE FOOT BY TYPE OF AMENITY
Single Family Homes, Metropolitan Phoenix, 1984



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

AMENITIES—VALUE ADDED

Homes with a garage, 41 percent of all homes sold during 1984, had a median price per square foot of $52.76, 6 percent more than the median square foot price of all homes sold (see Figure I). In contrast, homes with a carport, nearly one-half of all homes sold, had a median square foot price 3 percent less than the overall median. Homes with neither a carport nor a garage, 9 percent of all homes sold, had a square foot price 16 percent less than the overall median.

The most common bathroom arrangement, in 63 percent of the homes sold during 1984, was one full bathroom with an additional partial bathroom. The median price per square foot of homes with two or more full bathrooms was approximately 13 percent more than the overall median; these homes represented 18 percent of all sales.

More than three-fourths of the homes sold during 1984 were cooled by refrigeration. Homes with only evaporative cooling represented more than 20 percent of all sales; their median price per square foot was 11 percent less than the overall median. Despite the summer heat, homes without any cooling or with just a window unit still exist in the Phoenix area. They totaled 1 percent of all sales and had a median price per square foot 19 percent less than the overall median.

Two-thirds of all homes sold during 1984 had a covered porch or patio, but this extra feature had little effect on a home's price per square foot. In contrast, the median price per square foot of a home with a swimming pool was 8 percent greater than the overall median.

The age of a home also had an impact on its price per square foot. For homes built prior to the mid-1970s, the price per square foot was approximately $47 for homes sold during 1984. That figure gradually rises for homes constructed throughout the 1970s and 1980s, reaching $56.76 per square foot for homes built in 1983. Older homes typically have fewer amenities than newer homes.

— **Tom R. Rex**
Research Manager

Valley Inflation Rate Remains Near 6 Percent

Prices of goods and services in the Phoenix metropolitan area rose 1.8 percent during the first quarter, an increase comparable to that of most recent quarters (see Table 1). The first quarter 1985 index, 187.8 on a 1977 = 100 base, is 5.9 percent higher than it was one year ago.

COMPONENT INDEXES

The 1.8 percent first quarter increase resulted from advances throughout the index. A 2.6 percent rise in the index for food and beverages was the greatest since 1980, although the first quarter increase is usually the largest in any year. The 4.6 percent jump in the entertainment index was also the largest since 1980 and partially due to seasonal factors.

Food and Beverages

The advance was led by a 3.3 percent boost in the food at home category; increases for food away from home and alcoholic beverages were much smaller. Within the grocery

Metro Phoenix CPI

The Metropolitan Phoenix Consumer Price Index (CPI), on which these inflation figures are based, is prepared by the Bureau of Business and Economic Research in the College of Business, Arizona State University. Comprehensive pricing surveys are conducted each quarter by the Bureau in cosponsorship with Valley National Bank.

component, four of five subcategories posted a gain between 3 percent and 4 percent: cereal and bakery products; meats, poultry, fish, and eggs; fruits and vegetables; and other food at home (see Table 2). Prices of pork, eggs, and fresh fruits rose the most.

Housing

The housing index increased modestly, as both renters' and homeowners' costs advanced moderately. Prices for household furnishings and operations inflated 2.8 percent, but the cost of fuel and other utilities declined.

Transportation

The first quarter rise in the transportation category resulted primarily from the largest jump in new car prices since 1978. In contrast, used car prices dropped slightly, after four years of generally large gains, although they were still 12.7 percent higher than those of one year before. Gasoline prices were nearly unchanged from the prior quarter and only 1.9 percent greater than those of first quarter, 1984.

Medical Care

The first quarter advance in the medical care index was more broadly based than in prior quarters, as four of the five subcategories recorded a gain between 3 percent and 4.2 percent: health insurance, professional services, prescription drugs, and non-prescription drugs and medical supplies. Hospital costs once again did not change; they have risen only 0.8 percent from their level one year earlier.

Other Categories

Apparel and upkeep costs increased a relatively large 2.2 percent, due to gains in excess of 6 percent for apparel services, men's apparel and women's apparel. A large jump in the entertainment category was due to higher prices for sporting goods and equipment, toys and hobbies, and admission fees. The other goods and services category again rose modestly.

COMPARISON AREAS

The first quarter inflation rate in the Phoenix area was greater than the national average in all categories (see Table 3). The change from one year before was also larger in the Phoenix area in all categories except apparel and upkeep and other goods and services. In addition, the Valley's inflation rate was higher than in Denver or San Diego.

OUTLOOK

The Phoenix area's inflation rate remains stable, at an annual rate between 5.5 percent and 6 percent; this stability is expected to continue throughout 1985. The Valley's rate of inflation continues to greatly exceed

See "CPI," page 12

TABLE 1
PERCENT CHANGES
IN METROPOLITAN PHOENIX CONSUMER PRICE INDEX

		Percent Change from Preceding Quarter				
Expenditure Category	*Relative Importance*	*1st 1984*	*2nd 1984*	*3rd 1984*	*4th 1984*	*1st 1985*
ALL ITEMS	100.0	1.9	1.5	1.7	0.7	1.8
Food and Beverages	19.0	1.8	0.7	1.0	0.2	2.6
Housing	38.9	0.6	2.0	2.3	−0.1	1.2
Apparel and Upkeep	4.8	2.5	−1.3	−0.1	0.4	2.2
Transportation	21.9	1.6	2.3	1.2	2.2	1.7
Medical Care	6.6	11.4	1.1	3.0	2.7	3.4
Entertainment	4.6	1.1	2.3	2.6	0.3	4.6
Other Goods and Services	4.2	0.8	1.1	2.1	1.2	1.4

TABLE 2
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
First Quarter, 1985
(1977 = 100)

Expenditure Category	*Last Qtr. Index*	*This Qtr. Index*	*Percent Change*	*Year-Ago Change*
ALL ITEMS	184.4	187.8	1.8	5.9
Food and Beverages	166.0	170.3	2.6	4.5
Food	166.6	171.2	2.7	4.7
Food at Home	164.1	169.5	3.3	4.7
Cereal and Bakery Products	177.7	183.3	3.1	8.4
Meats, Poultry, Fish, and Eggs	156.0	161.8	3.7	2.8
Dairy Products	156.2	158.6	1.6	3.5
Fruits and Vegetables	176.0	182.5	3.7	6.8
Other Food at Home	152.2	157.4	3.4	4.1
Food Away from Home	168.8	171.8	1.8	4.8
Housing	192.8	195.0	1.2	5.4
Shelter	206.6	209.2	1.2	5.4
Renters' Costs**	112.1	112.9	0.7	6.3
Homeowners' Costs**	104.0	105.1	1.0	4.3
Fuel and Other Utilities	168.4	166.5	−1.1	4.3
Gas (piped) & Electricity	183.7	180.4	−1.8	5.4
Household Furnishings & Operations	147.2	151.3	2.8	6.0
Apparel and Upkeep	140.4	143.4	2.2	1.1
Transportation	183.6	186.7	1.7	7.7
Private Transportation	179.7	183.3	2.0	7.6
New and Used Cars	192.7	200.0	3.8	12.1
Motor Fuels	192.6	193.5	0.5	1.9
Public Transportation	247.6	242.4	−2.1	7.9
Medical Care	240.1	248.2	3.4	10.6
Entertainment	172.2	180.1	4.6	10.1
Other Goods and Services	166.2	168.5	1.4	6.0

An ** indicates that the base period is second quarter, 1983.

TABLE 3
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
UNITED STATES AND COMPARATIVE CITIES
First Quarter, 1985

	Percent Change from Last Quarter		Percent Change from One Year Ago			
Expenditure Category	*Phoenix*	*United States*	*Phoenix*	*United States*	*Denver*	*San Diego*
ALL ITEMS	1.8	0.7	5.9	3.5	2.2	5.0
Food and Beverages	2.6	1.7	4.5	2.5	2.1	2.5
Housing	1.2	0.8	5.4	3.8	2.7	7.1
Apparel and Upkeep	2.2	−1.7	1.1	2.9	1.8	3.3
Transportation	1.7	−5.7	7.7	2.8	0.5	4.2
Medical Care	3.4	1.6	10.6	5.5	6.5	2.5
Entertainment	4.6	0.9	10.1	3.9	−1.8	3.4
Other Goods and Services	1.4	1.3	6.0	6.3	5.2	8.9

Source (Tables 1, 2 and 3): Metropolitan Phoenix data compiled by the Bureau of Business and Economic Research, College of Business, Arizona State University, in cosponsorship with Valley National Bank; other data in Table 3 is from the U.S. Department of Labor, Bureau of Labor Statistics.

Purchasing Advances Continue in March

In March, the Arizona economy continued to consolidate the advances that began in January. For the third month in a row, all indicators were on the positive side, with new orders received and production showing strength. The inflation rate declined even further.

The first quarter economic results were increasingly positive. Further advances can be expected during the next quarter, although the growth rate will be moderate — typical in the third year of an economic expansion. Price pressures will continue well under control, which should enable the expansion to extend through the balance of the year.

Table 1 presents the results of the March survey of Arizona purchasing managers.

TABLE 1
MARCH PURCHASING SURVEY

Key Indicators	Percent of Purchasing Managers Indicating Each Response (March compared to February) Higher	Same	Lower
Prices paid for major commodities	28	55	17
Delivery time from vendors	19	63	18
Purchased materials inventory level	27	49	24
New orders received	41	42	17
Production	38	53	9
Employment	27	57	16
Purchases	41	41	18

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

PRICES

Prices paid for major purchased items went up again in March, but at approximately half February's rate. The inflation rate began to moderate dramatically in July 1984 and registered only relatively small price hikes during the past six months. The increase rate has dropped in each of the three months of 1985. With the continuing strength of the dollar against almost all foreign currencies, encouraging lower-priced imports, and excess production capacity still available, the Arizona economy should continue to enjoy relatively stable prices through at least the third quarter.

DELIVERY TIME/INVENTORIES

Delivery time on shipments from vendors did not change in March. Evidently, vendor backlogs had not changed from their February level.

Inventory levels of purchased materials were also essentially unchanged during March. This marks the ninth consecutive month of constant inventories and is typical for an economy on a relatively stable growth curve. Inventory additions are not stimulating economic growth, nor is an inventory overhang threatening continuation of that growth.

NEW ORDERS/PRODUCTION

New orders received by Arizona firms continued to increase nicely, following a strong upward thrust in February. The February and March new order increases both were larger than in any month since July 1984. This shows that the growth rate of the Arizona economy is continuing to accelerate, exhibiting a good deal of underlying strength.

Production of Arizona firms mirrored the new order increase. Both the February and March production hikes were larger than in any month since May 1984.

EMPLOYMENT/PURCHASES

Employment continued to grow in March, at about the same rate as in February. The March increase rate was the largest since September's rate. The expanding employment trend of the first three months of 1985 should continue, due to the increase in both new orders and production.

Purchases of materials and supplies by Arizona firms rose at the same rate as in February. The increased dollars being spent with vendors is having a stimulative effect on the Arizona economy.

— Harold Fearon

Dr. Fearon is chairman of the Department of Purchasing, Transportation, Operations in the ASU College of Business and is the National Association of Purchasing Management Professor.

Arizona Purchasing Survey

Now in its 23rd year of monthly reporting, Dr. Harold Fearon's survey of Arizona business conditions utilizes data from a questionnaire sent to members of the purchasing management associations of Arizona and southern Arizona. It asks them to indicate the direction of activity—higher, unchanged, or lower—of seven key measures of economic activity in the month just ended. These purchasing managers deal daily with supply, demand, and price factors in the marketplace; their aggregate readings have accurately charted the state's economic course for two decades, providing timely data on turning points.

"Home Costs," from page 7

reasons for buying a home, and because creative financing lowers the cost of home ownership, the home market remains relatively strong during the 1980s. The strength of the market may also be due to those unaware of the extent of housing's problems and to those who expect conditions to change soon.

While current housing conditions are unlikely to persist indefinitely, they have lasted for nearly five years. The near-term prospect for much lower real interest rates or much higher real appreciation of housing values is dim. Because of the affordability problems and the high home price-to-income ratio, home values are not likely to rise at a rate much beyond the inflation rate. While real mortgage interest rates may decline slightly, they probably will remain at relatively high levels, due to the federal deficit, fears of inflation, and the existing equilibrium between supply and demand for loans. Even when conditions do change, it is unlikely they will approach those of the 1970s.

— Tom R. Rex
Research Manager

AZ Leading Index Surges Again in February

The Arizona Index of Leading Economic Indicators rose 0.6 percent in February, the second consecutive strong gain, following a year of erratic monthly changes (Figure I). The index reached a record-high of 122.3 in February, up from a revised index of 121.6 in January (1977 = 100).

Although only four index components rose in February, the diffusion index (the proportion of increasing components to decreasing components, which considers an unchanged component to be one-half increasing and one-half decreasing) reached 55 percent, its highest value since January 1984. Preceding and during an economic expansion, the proportion usually exceeds 50 percent; preceding and during a period of contraction, the diffusion index generally registers 40 percent or less.

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

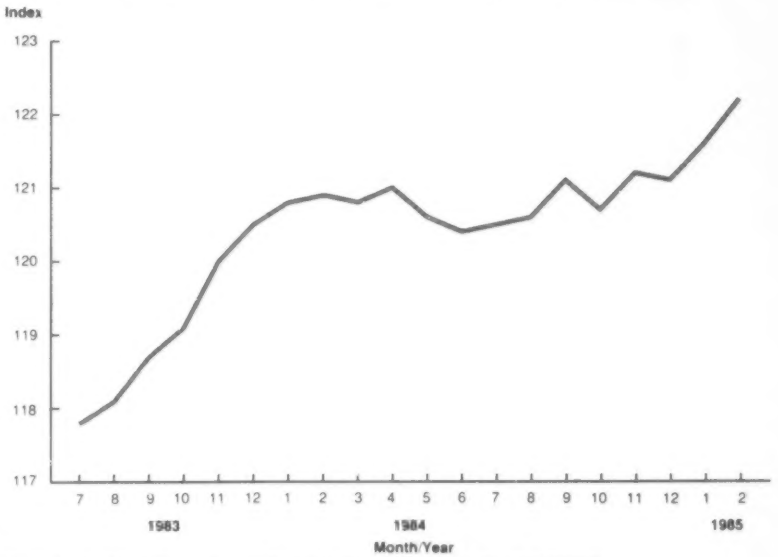
	Net Contribution+		
	Dec. '84	*Jan. '85*	*Feb. '85*
Delivery Time*	−.01	−.02	.00
Inventory Levels*	.00	−.03	−.03
New Orders*	.03	−.02	.01
Production*	.04	.02	.00
Employment*	−.01	−.01	.00
Residential Building Permits	.01	.08	.12
Unemployment Insurance Claims	−.29	−.19	−.10
Average Workweek Manufacturing	−.56	−.16	.12
Money Supply	.57	.80	.67
Change in Sensitive Materials Prices	.13	−.04	−.08
OVERALL INDEX	−.09	.51	.70

+The net contribution of each component is calculated by multiplying the monthly change in its index by its relative importance.

*Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

FIGURE I
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source Bureau of Business and Economic Research, College of Business, Arizona State University

INDEX COMPONENTS

Once again in February, the greatest contributor to the index's gain was the national money supply (M2), which grew rapidly for the fourth consecutive month (see Table 1). In addition, the level of residential building permits rose for the sixth successive month, the February increase being the largest since mid-1983. Finally, the advance in average weekly hours worked in the manufacturing industry reversed a four-month decline.

Of the index components derived from a survey of the purchasing management associations of Arizona and southern Arizona, only new orders gained. Inventory levels fell, while the other three components did not change from their January levels. All five components had slowly declined for nearly one year.

Unemployment insurance claims rose in February, for the third straight month, a negative factor in the index. Prices of sensitive raw materials also dropped in February, another negative factor, following three consecutive months of increase.

OUTLOOK

Although firm conclusions cannot be drawn from the data of a brief, two-month period, the solid gains of January and February may provide an early signal of strengthening economic growth for upcoming months, from the state's slower growth since summer 1984. However, the Bureau's forecast of oscillating growth throughout 1985 has not changed. Further, any improvement is likely to be uneven, affecting some industries more than others.

The national Index of Leading Economic Indicators has also experienced sizable gains during the last two months, following a period of inconsistent declines. Nevertheless, a longer period of steady advances is required to forecast the beginning of a new period of solid growth.

Looking ahead to the March Arizona index, the five components from the survey of purchasing managers are already available. Seasonally adjusted, they indicate a slight decline, reflecting an underlying weakness in the economy, despite improvement in the entire leading index.

— **Luke Koons**
Research Analyst

— **Tom R. Rex**
Research Manager

"CPI," from page 9

the national rate, which declined recently to approximately 3.5 percent. The national rate probably will accelerate back to the 4 percent to 4.5 percent range by late 1985.

In contrast to 1984, when rapidly rising health insurance premiums were responsible for one-half of the Valley's higher inflation rate, the variance between the Phoenix and national inflation rates is now due to small increases in almost every component of the CPI. These generally higher prices are the result of a booming economy.

— **Tom R. Rex**
Research Manager

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	3rd Qtr.	41.738	8.9	12.0	NA	NA
Arizona - 1972 Dollars	3rd Qtr.	20.193	9.6	11.2	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	1st Qtr.	187.8	1.8	5.9	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Feb.	122.3	0.6	1.2	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	Jan.	351,471	37	25	351,471	25
Pima County	Jan.	58,810	− 9	3	58,810	3
Balance of State	Jan.	47,464	6	7	47,464	7
Arizona	Jan.	457,745	25	20	457,745	20
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Jan.	5,117	58	−10	5,117	−10
Pima County	Jan.	1,272	39	−29	1,272	−29
Balance of State	Jan.	1,099	24	−12	1,099	−12
Arizona	Jan.	7,488	48	−14	7,488	−14
HOME SALES						
Maricopa County - Number	Feb.	3,507	11	0	6,680	−21
Maricopa County - Median Price	Feb.	70,675	−2.9	2.4	71,650	3.1
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Feb.	2,507.8	8.7	−8.9	5,259.6	9.2

NA = Not Applicable

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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